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KNOW BEFORE YOU SPEAK.

AMONGST the petty dishonesties of common life, there are some more hurtful, but perhaps none more paltry, than that of pretending to know where one is ignorant. It is a fault into which many not ill-meaning persons are drawn, from a false shame which would probably be checked if any immediate evil consequences seemed likely to flow from it. They dislike to appear at a loss, or defeated, or under a short-coming, about anything; and thus are tempted either to affect knowledge where they have it not, or in some way to allow it to be supposed that they are not ignorant. For example, some one adverts to a fact in science with which he is familiar. Perhaps it is brought forward for the instruction or entertainment of the rest—perhaps to show his own knowledge—perhaps only in the fair course of conversation: no matter how it may be in this respect—the point at present in question is the want of candour in the persons whom he is addressing, in hearing as if they understood that and all the related facts, putting on an intelligent look, assenting to the proposition as if convinced of its soundness, and perhaps even hazarding some remarks that may favour the supposition of their being as well informed on the subject as the first speaker. Or perhaps a passage of a classic or foreign author is quoted—pedantically or otherwise it matters not—what we have to remark is the unconscientiousness of the rest of the company, or of particular members of it, in letting the thing pass as an intelligible part of the discourse, and appearing to sanction its appositeness, when, in reality, they are either altogether ignorant of the language in which it is written, or have been unable to follow the sense of the passage with any degree of clearness. Another class of cases are those in which particular unconnected facts, such as are found in almanacs, chronological tables, and geographical dictionaries, are referred to, when too often there is an observable anxiety to speak or look as if we were not now, or had not recently been, ignorant of the special point under notice; even the mention of some distantly connected fact being felt as a protection against the supposition of entire ignorance—as, for instance, when the point in question is the name of the remarkable mountain in Ceylon, to state that you knew very intimately a cousin of the gentleman who wrote the last book about the island. All these are offences against good taste much within the range of that last and worst—the active and unprompted bluster of one who talks of what he does not understand. This grand offence is far beyond our hopes of correction; but we think that a few remarks on the comparatively negative instances of the error above described, may be attended with a good effect.

When any rational and well-meaning person feels himself tempted into such courses, let him only consider how absurd it is to suppose that there can be any real disgrace in being ignorant of any particular fact whatever. Science is a vast field—so is learning—inasmuch that there can be no man in existence acquainted with the whole of either. The most eminent in both scientific knowledge and in learning know only a part, and are liable to be found ignorant of much. This is well known and universally acknowledged. When, therefore, any ordinary person is found unacquainted with some particular fact, or even with some entire science, or some whole language, there is no reason why he should be deemed a generally ignorant man. It may be presumed that, if he is ignorant of one thing, he is conversant with another, as is the case with the most eminent students; and thus he may pass very well, though openly acknowledging

that on the point in question he is blank as a new-born babe. These considerations apply with particular force to the last of the above classes of cases. The knowledge is there of a kind which no rational person attempts to make himself master of. It is rather discreditable, in some little measure, to be too well read in such facts. And how well may a man fulfil his duties in the world, and how well informed may he be in what is useful and serviceable, although he does not know one fact in the topography of Ceylon. If these considerations fail, let us only reflect for a moment on the disgrace of being detected in an attempt to conceal ignorance. There is a story of Sheridan having once apparently quoted a passage from a Greek poet in the House of Commons, when in reality he only uttered a gabble resembling Greek. An honourable gentleman, who spoke after him, fully assented to the application of the passage to the case in question. How ineffectually ridiculous must that man have appeared when Sheridan disclosed the trick! This is a dishonour to which every one is exposed, who in any way, however slight or negative, affects to appear knowing where he is ignorant.

The practice is also to be regarded as very injurious to conversation. Indeed, when one remembers how much of the time of most social assemblages is occupied in the vapourings of those who would fain be thought knowing, or in worrying down the assertions hazarded by ignorant effrontery, or in allowing those who know nothing on the point in question to speak of something else not called for, merely that they may seem to know something—and when he contrasts this un instructive jabber with the comparatively well-authenticated statements to be found in books—he might almost be tempted to think that a page well read is worth a whole evening of ordinary conversation. Perhaps it would really be so, if there were not in conversation a gratification to a different part of the mental nature, the social feelings, and also an excitement which occasionally scintillates new and original ideas, and leads to profitable trains of thought and inquiry for the future.

Speaking vaguely in ignorance, and then defending what has been said, is another of the great banes of conversation in all except highly accomplished circles; and I have often wished for the presence of some one who, having committed a whole encyclopædia, almanac, and ready-reckoner, to his mind, would be able to correct all wide and false speaking, and thus check long endless discussions in the outset. I once witnessed the good effects of such a monitor, in the course of an excursion in an Irish steamer. Some young men were delivering their ideas about a variety of matters in the usual loose way, and one of them at length remarked of the pyramids, that they were so very high that he verily believed the Wicklow hills were a joke to them.

"I should think not," said a solemn, quiet-looking man. "The pyramids are known to be very much less than the Wicklow mountains."

"And did you ever see the pyramids, then?"

"No, sir."

"But I have; and, I can tell you, the Wicklow hills are nothing at all beside them."

"I am sorry, sir," resumed the solemn man, "that I cannot join you in that opinion. Although I have not seen the pyramids, I know their measure by the accounts of the best authors. The largest is now fixed at five hundred and forty-three feet high. But the Wicklow hills are generally from two to three thousand feet. Besides, pyramids are only the one-third of prisms of equal base and height, and the solidity is as one-third of the area of the base by the height;

while the Wicklow hills, being of a swelling form, must, in proportion to height, give more solid contents."

Here was one assertion of loud ignorance completely put down. But another was not long wanting.

"What sad accounts these are for the ladies!" remarked one of the young men; "I mean the accounts which are published of the greater number of women than men in our principal cities, as ascertained by the late census."

"What can it be owing to?" inquired another.

"Why, I suppose it must be owing to a vast number of men being taken away as emigrants, soldiers, and sailors, and to so many of them getting killed in battle and otherwise."

"I should rather think there must be more women born than men."

"Oh, not at all; the numbers must be equal at first, you know."

"I know nothing of the kind. There cannot be so very many men carried away to the colonies and the army. It must be owing to the greater number of girls born. Why, nearly every family I know has more girls than boys."

"Well, for my part, I cannot see how the sexes should not be equal at first."

"But they cannot be equal, I tell you," &c.

Thus commenced a dispute which was kept up stoutly on both sides for a quarter of an hour, without one particle of real information on either; when at length one of the contending parties asked the solemn man if he did not think his view of the question right.

"No, I don't," said the solemn man; "neither of you is right. On the average of European countries, a hundred and six boys are born for every hundred girls. If, therefore, the two sexes had an equal chance of life, and remained in equal circumstances, there should be a preponderance of males to that extent. To account for the opposite being the case, we may chiefly look to the ascertained greater value of female than male life. A man at forty has the expectation of twenty-seven more years; but a woman of forty has the expectation of thirty-one years; and so on in proportion at other ages. The superiority of female to male life is partly, no doubt, owing to the comparative exemption of women from the severer hardships of life, and from warfare; but it is probably owing in most part to the superior adaptation of their constitutions to the existing general circumstances of society, as the excess of male mortality is greatest in infancy, the deaths of boys in the first year in Europe being as about four to three of girls, while even in still births the females have about the same advantage, the proportions there being as ten to fourteen."

It was of course pedantic to have so much out-of-the-way knowledge at command; but its effect in the present case, in stopping short what would probably have been an incessant wrangle for the remainder of the voyage, made me truly thankful that the solemn man had chanced to be of our company. I am no advocate for all men being crammed with facts such as those which this individual could bring forth so readily; but it is surely no unreasonable demand that, when men are totally ignorant of any subject, they will refrain from disputing about it—that, in short, they should know before they speak.

There are some doubtful branches of knowledge, which furnish a rich field for those who delight to speak, orally or otherwise, without the previous trouble of acquainting themselves with the subject. Such are phrenology and animal magnetism, respecting which there has been gathered just a sufficiency of facts to afford a probability and to stimulate to

further investigation, but not enough to convince the majority of philosophical minds. When a branch of knowledge is in this state, the speakers in ignorance have no mercy upon it. Facts are nothing to them, for they know nothing about facts. They only know that they are safe from the correction of the majority of enlightened minds in giving such subjects their ridicule. Without the least regard to the specific merits of the two subjects named, I would venture to make the general remark, that some knowledge seems necessary to entitle any one to speak on any point that may come under discussion; and that, without this requisite, it cannot be expected that error, where there is error, will be successfully opposed. A disciple of Dr Gall has remarked, that often, in listening to the empty observations which ignorant men and ignorant women take leave to make on his science, he has been conscious of a more profound degree of the ridiculous than he could recollect ever experiencing on any other occasion in his life—so absurd did it appear, that one unacquainted with the simplest principles of physiology or any other established science, and who had never given one moment's study or one serious thought to the subject under discussion, should make such a gross exhibition of his self-esteem, not only unchecked by the audience, but with their concurrence. What the audience received as legitimate ridicule came before his mind as only a betrayal of ignorance on that and all associated questions, accompanied by a vainglory which the greatest wisdom could not have justified. This feeling in the mind of the phrenologist is natural, and, supposing him to be altogether mistaken with regard to his science, his ridicule has certainly a superiority over that of his opponent, in being founded on some knowledge. It is perhaps chiefly from this cause that none of those who adopt doubtful sciences are ever unconvinced. They ground so far upon what they believe to be ascertained truths in nature. Antagonists are contented to suppose, without putting themselves to the trouble of gathering opposite facts. A different effect is not to be expected till men shall generally acknowledge and act upon the maxim, to KNOW BEFORE THEY SPEAK.

NORTHERN COLLIERIES.

CONCLUDING ARTICLE.

HAVING glanced at the chief points regarding the Newcastle collieries, in their establishment, mode of working, and the calamities attending their operations, it now only remains to touch upon the physical and moral condition of the collier population. The number, then, of persons actually employed in and about the Newcastle pits exceeding 12,000, it is obvious that their physical and moral condition must be a matter of the greatest interest, particularly as that condition also influences to a great extent that of the females and children constituting the families of the pitmen.

To commence with the external appearance of a born and bred pitman, it may be noticed that his outward man distinguishes him from every other operative. His stature is diminutive; his figure disproportionate and misshapen; his legs being much bowed; his chest protruding (the thoracic region being unequally developed). His countenance is not less striking than his figure, his cheeks being generally hollow, his brow overhanging, his cheek bones high, his forehead low and retreating; nor is his appearance healthful. His habit is tinged with scrofula. I have seen agricultural labourers, blacksmiths, carpenters, and even those among the wain and distressed stocking-weavers of Nottinghamshire, to whom the term "jolly" might not be inaptly applied, but I never saw a "jolly-looking" pitman. As the germ of this physical degeneration may be formed in the youthful days of the pitman, it is desirable to look for its cause.

The position of the hewer at his work is one of great restraint; he lies, as it were, upon one leg, the other resting on the foot in a state of semi-flexion; his body is thrown forward, and in this position he strikes the seam with his "pick." There is an art in "cutting" coal; the occupation is therefore assumed at as early a period as the operative's strength and the superintendant's arrangements will permit, which generally happen to agree at about the age of 20. Although the chest and arms of the hewer are the best developed parts about him, and are very far from amiss, yet they cannot be compared with the corresponding parts of a Northumbrian agricultural labourer. As sources of health to the pitmen, may be noticed their daily habit of washing and scrubbing themselves above the waist and below the knees, except the back, which, with the rest, is regularly washed once a-week; and also their wearing flannel to absorb perspiration and retain heat, while not working, and to ward off the flame in case of "fire." The fine particles of coal-dust, so far as I have observed, seem little if at all injurious to pitmen, notwithstanding the fatal effects of breathing others

kinds of dust; as, for instance, by our stone-masons, especially in Scotland, who "dress" in close places; or our Sheffield knife-grinders, and others. The vegetable origin of coal, and its consequent subjection to the laws of chemistry, seems to furnish a sufficient explanation of this. Pitmen are frequently known to keep their health wonderfully well while "working wet," although having to stand for hours in many inches or a few feet of water—a result that may perhaps be accounted for when we look to the temperature of the water in many cases, to its saline impregnations, to its faculty of absorbing any noxious gases, and of promoting ventilation; to the exercise taken at the time, and, if we except the time of detention at the bottom of the shaft before being pulled up to "bank," we may add, to the care with which the pitman washes, rubs, and changes himself on getting home.

The principal diseases of pitmen are what medical men term functional, and are chiefly, of course, referable to the nervous system. Of these may be particularly mentioned difficulty of breathing (dyspnoea) and indigestion (dyspepsia). The former affection is usually but temporary, and yields to the application of known remedies; and the same might be affirmed of the latter, did not the patient too frequently protract the attack by wilfully transgressing all dietetic rules. A deficiency of moral courage has been alleged as a characteristic of pitmen; but this certainly is not their failing in respect to the dangers of the mine. In the painful hostilities, however, caused by one or two unhappy "strikes," they have given evidence of this infirmity, and have rendered themselves ridiculous by their aggressive weakness.

Many of the physical effects of pit work are of tardy growth and manifestation; hence they must be looked for and estimated in some of the old collieries, where the labour has been the uninterrupted occupation of generations. Conclusions deduced, for example, from the appearance of the work-people in the newer collieries of the south of Durham would be partially fallacious. In scrutinising the boys, the corporeal characteristics of the adults may be frequently noticed in incipient development in the adolescents, or hereditarily transmitted to the children. Small bulk of body, paleness and angularity of visage, and their general appearance, which is very far from robust, would lead to the conviction, that they are a somewhat deteriorated race. Some effects, however, of employment in coal-mines, which might have been assumed from *a priori* conclusions, are not found to be established by actual experience. Of this nature is the natural supposition, that the exclusion from sun-light during so large a portion of the day (and in the case of the boys in winter, it almost amounts to an exclusion from the entire daylight) would be actively injurious to the eyesight. But this is not found to be the case in the young; and in the old an occasional tendency to regard objects, especially books, with a peculiar oblique look, is all that I could discover. The most remarkable effect of the exclusion in the mines is the paleness of countenance so generally observable, and so strikingly contrasted with the ruddy visages of those employed at bank. To extreme changes of temperature, not to be braved with impunity by an occasional visitant to the pits (of which I became painfully aware), the miners appear to have become perfectly indurated. Over the slight tunic of flannel in which, together with drawers, they ordinarily labour (although a very near approach to nudity is observable in some deep and hot pits, as in Monkwearmouth; and in Shilbottle pit, which supplies the town of Alnwick with fuel, the men work completely naked), they add a jacket before emerging from the pit-mouth; and thus moderately enveloped, and commonly disdainng greatcoats or plaids in the severest weather, the inclemency of seasons appears to be, as far as they are concerned, completely innocuous. The temperature of the mines varies at different times and in different pits. The average heat in one of the Hetton pits at the bottom of the shaft is 66 degrees, and in the recesses of the workings 70 degrees; while at Monkwearmouth pit, the extreme case, the average heat is about 78 or 80 degrees.

Let us, however, follow the colliers home, and regard them when out of the pit. Upon the termination of their daily duty they return to their houses, which, from the early hour of commencing their mole-like labours, they may be seen doing at mid-day, or earlier, in companies of a very uninviting aspect. Trios or long strings of these black-looking individuals may be seen approaching from the site of the pit, many of them swinging their Davy-lamps about with their long and oddly-carried arms, and others handling the tin bottle which held their coffee. Upon their entrance into their little cottages, they proceed to strip and wash themselves, which, from the secluded character of the colliery villages, they see no harm in performing somewhat openly. The hour of dinner with the factory artisans thus becomes with the colliers the hour of washing; and the repeated ejections of soap-suds from each door testifies to the care with which ablution is accomplished. The meal to which the colliers now sit down is one of no despicable character. There is no deficiency of animal food and of little luxurious appurtenances; one of which used to be considered quite indispensable, namely, a rich kneaded cake, which, from the hissing noise it emits while baking on the "girdle," is termed, not inaptly, a *singing-hinnie*. After taking a very tolerable quantity of the good things set before them, the majority turn into bed, and one hears or sees little of them

till the evening, when perhaps they may indulge in a walk, a whiff of tobacco, a scrape on the fiddle, or a puff at the flute, before finally retiring.

The lads and children have now returned from the pit, have undergone their ablutions, and swallowed whatever was in reach, generally contriving to obtain a substantial meal, if prepared for it. Unfortunately, some of the younger boys, who have scarcely become inured to the pit, experience a want of appetite and a revulsion to food, which nature usually overcomes after longer habit and presence in the mine. Instances, however, are not wanting in which the boy never becomes insusceptible of the noxious influences of the pit, and habitual nausea and eructation are superinduced. More than a dozen examples are now before me in the Report; and the frequency of the complaint from so many independent witnesses proves that it is not without foundation. Yet the boys will manage by some contrivance to secure a game at play, or a lounge in the lanes or fields, previously to their early retirement to rest. About nine o'clock fiddles begin to sound very inharmoniously; attempts at solos upon the flute to die away in the birth of the first note; meetings, for various purposes, to break up; and boys to become considerably less pugnacious and vociferous. These are the signs of a settlement for the night; and at ten or eleven o'clock nearly the whole collier village is quiet or snoring. Woe to the ill-starred stranger whose avocations may have detained him to this hour, or beyond it, if he attempt, unguided and unprotected, to thread his way for the first time through the unmitigated darkness of the pitmen's colony. Ten to one but he tumbles unawares into some old railway cutting (which, indeed, happened to myself), and there he is likely to remain for all the assistance that he can obtain from the colliers, whose first sleep would scarcely suffer disturbance from anything short of an explosion of carbureted hydrogen gas. So seldom are the remote pit villages trodden by the feet of strangers, that cuttings and embankments of abandoned railways are sometimes permitted to remain unfenced in the very centre of streets, in perfect consistency with the safety of the inhabitants, but to the imminent risk of the limbs of visitants, who have to grope their way at night, for the first time, through the unlighted neighbourhood.

This leads me to say a word upon the colliery villages. The houses of the pitmen are erected either by the proprietors of the colliery or by companies, who speculate in the building and letting of them to coal owners at from L3 to L4 per annum. It is requisite that the houses should not be distant from the pits, and they are therefore grouped round it as land can be obtained. The general appearance of a colliery village is that of two or three long rows, or a square, of low cottages, with frequent intervals. Before each set of cottages is erected a brick building for a common oven, and the loaves baked therein are certainly by no means diminutive. The back rows of the houses too frequently present a kind of central ridge formed by ash heaps and domestic superfluities, which is not only unsightly but sometimes offensive. There is seldom an efficient drainage in this quarter; and the whole arrangement is capable of great improvements. In the newer pit villages the appearance of matters is considerably ameliorated; and it is probable that the appellation of "Shiney Row," which is the phrase by which a colony of this kind is provincially known, arose from the neatness that has for some time characterised many new colliery villages.

So remarkable a dissimilitude as may be perpetually observed between the furniture and the houses themselves, is probably peculiar to the domiciles of the Northern pitmen. Amongst some hundreds of houses visited by me, there were but few that did not partially exhibit this contrast; and in many it was strikingly displayed by the presence of some article of furniture of a comparatively costly description. An eight-day clock, a good chest of drawers, and a fine four-post bedstead, the last two often of mahogany, and sometimes of a very superior kind, were commonly to be noticed; for they are deemed indispensable by a decent newly-married couple, and are paid for by instalments. Costly furniture is, however, sometimes envied by despicable lumber, if not by actual uncleanness.

The duties of a pitmen's wife are very numerous. The male portion of her family are a source of constant trouble to her, for some are going into the mine almost while the others are leaving. The hours of labour and rest not being the same for men and boys, the necessity of preparing numerous meals, at various and somewhat irregular periods of the day, is obviously entailed upon her; what between dinner for one, tea for another, washing and scrubbing materials for a third, and the cries of the child in the cradle, it is clear that she is not an idle personage. The constant exhibition of evacuated habiliments, either in the tub or on the drying line, proves that washing is almost a daily occupation. Although, however, the temptation to become a pitmen's wife does not seem to be great, yet it is sufficiently strong to allow of a frequency of early marriages. Inter-marriage is usual amongst the collier population, whose elaneness is as much exhibited in this respect as in any other. From the comparatively high wages which children obtain, namely, from 10d. to 1s. 10d. per day, it is readily conceivable that they are considered as acquisitions to a pitman's fortune. Hence, what is regarded in civic society as by no means a desirable match—to

wit, a widow with a number of children—is looked upon in a contrary light by a pitman, who invariably casts his eye about to secure such a boon, provided only the children be boys. It was narrated to me, upon the authority of the late vicar of N—, that after a lamentable explosion in one of the mines, by which one poor mother of a large family was rendered a widow, a great competition for the hand of the same was expected, on account of the large proportion of boys who called her mother. One of the youngest of the pitmen, who presumed upon his good looks, and her kind looks, had been so very bold as actually to propose and pop the question at the very brink of the grave. He expected a very serious rebuke for his audacity and unseemly haste, and this he had nerved himself for; but he was taken quite aback, as he said, when the widow unhesitatingly declared her liking for the suitor, but only lamented that he was "too late" in his suit. A still more audacious youth had proposed at the commencement of the funeral procession, and was accepted!

The disagreeables appertaining to the labours of a collier are counterbalanced by the large wages he is in the habit of receiving. The hewer obtains at the rate of twenty shillings per week, and the use of his house, together with an allowance of coal. If the pit be not in full work at any period of the year, still a diminished pay is given. The pits are commonly worked for eleven days per fortnight, and the first-class pay of hewers is for full work 3s. 9d. per day; that of the strong lads, called "trams," or unsaid propellers of the coal baskets, is 2s. 6d. to 2s. 2d. per day; that of the younger, "putters," or propellers, from 1s. 10d. to 1s. 6d. The drivers receive 1s. 3d. per day, and the little door-keepers, or "trappers," 10d.

These rates of pay are obviously such as fall to the lot of but few labourers; and did the pitmen possess habits of economy, they might have funds on which to fall back when incapacitated by age and the severity of their employments. Unfortunately, in most cases their economy consists in obtaining as many good things to eat and drink as their money will immediately purchase, and as many more as the shopkeeper will give them credit for; in short, although in the power of many to do so, the instances of pitmen having saved money from their earnings are rare, and if permanent infirmity overtake them, they are thrown upon the parish. It is, however, pleasing to have to add, that considerable improvements in the general habits of the colliers are visible to those who have known them for a series of years. A considerable amount of improvement is due to the efforts of the Methodists, and this all parties acknowledge.

It is generally affirmed that Northumberland is especially remarkable for the number and excellence of its schools; but to whatsoever extent this supposition may be correct, it can only have relation to the agricultural districts and the towns. Until lately, the colliers have possessed but few secular schools in their villages, and the same remark almost applies at present. There are certainly numerous Sunday schools in connexion with the various sects of Methodism, and to these much is owing; but they are neither organised, nor do they undertake to impart such an education as properly belongs to a day school. Some examples are now set, which, it is trusted, may prove beneficial and stimulating; but no one will deny that hitherto the children have been left pretty much to their parents and to themselves. Because pitmen have been found to be a somewhat suspicious and impracticable race, nearly all efforts to establish efficient schools have been relinquished. There are certainly some important exceptions, which are detailed in the Report before me; but in the great majority of instances, the establishment is set up by precisely the most unfit person to conduct it. If a pitman has the misfortune to lose an arm or leg, it would almost seem to have been concluded that he must simultaneously have acquired the skill to teach, and that the catastrophe which has incapacitated him for pit labour has conferred upon him a miraculous power of imparting knowledge. Hence it is no uncommon thing, upon entering a school in the neighbourhood of a coal-mine, to observe at the head of the establishment an evident sufferer from the calamities incident to the pit. It is true that the wooden leg is frequently made to serve various unexpected purposes, and that the remaining arm, even though it should be the left, possesses a remarkable vigour when the "strap" or instrument of correction is found necessary. I remember one schoolmaster in whom steel-hooks supplied the place of hands, and yet he was astonishingly handy. Persons, too, deformed from their birth, or unsuccessful in their trades, very commonly occupy this important office. As to what are called the night schools, under present circumstances boys can scarcely be expected to leave the pit for the school-room, or to remain awake there if they do. In some of these night schools, the tremendous fires in the close rooms would have induced me to prefer a well ventilated pit. With reference to the education of females and very young children, there are some dame schools in these villages, but they are liable to the same objections as the boys' schools; and the mistress was frequently found to be a personage whose current of kindness was either actually frozen up or rapidly congealing.

Much remains to be said; but we must here terminate our remarks upon the Newcastle colliers and collieries. The source in which a detailed elucidation

of the points we have touched upon may be found, has been indicated.* It is hoped that the readers of this Journal will have been interested in the information afforded respecting people and places so little known as northern pitmen and northern coal-pits!

PEDESTRIAN TOUR IN SWITZERLAND.

JUNGFRAU—GRINDELWALD—MEYRINGEN.

AUGUST 22.—Having spent the night at the inn of the Jungfrau, in our ascent of the Wengern Alp, we awakened soon after five, anxious to discover what sort of place we were in; but we might have well enough located ourselves, like the Irish mile-stone, "twenty miles from innwhere," for we were enwrapped by a dense white mist, which lay on us cold and clammy as if we could feel it with our hands. Having victualled ourselves, we started, and as we went along, it was evident that the mist was rarefying, for through occasional interstices we could see prodigious and mysterious-looking objects, sometimes seeming pure white, and sometimes jet black, scarcely caught by the eye, when the mist closed round them again, and baffled the anxious gaze. Oh! that that veil of mist would be lifted up like the curtain of a theatre, and let us behold the wondrous exhibition which we were sure nature had arranged behind it. At length, the mist did gradually and systematically remove itself, presenting black precipices and white coats of snow. The appearance could not but forcibly remind us of the description by Byron in his "Manfred," written on that very spot, when the bard had his eye on precisely the same scene.

"The mists roll up along the glaciers: clouds
Rise curling fast beneath me white and sulphury,
Like foam from the roused ocean of deep hell."

When it was all opened up to us, we gazed upon the scene in the full consciousness and belief that the world had no grander landscape to spread before the admiring eye of man than that which was now laid open to us. Right opposite to us arose the mighty Jungfrau, visible from the summit to the base. Of this mountain, 13,748 feet above the level of the sea, the greater part of the surface on the side opposite to where we stood is one black perpendicular precipice. From the summit of this great wall, there stretch towards the mountain-top fields of everlasting snow, and wherever there is a shelf or indentation on the precipice, the snow lies; so that wherever the eye ranged over the wide surface, it encountered precipice or snow. The group of hills, some of which might be counted part of the Jungfrau, though they enjoyed separate names, stretched far away. These were the Monch, the Eiger, the Schreckhorn, and the Wetterhorn—all of the same character with the Jungfrau, with this difference, that their various summits are more narrow, and that they generally shoot up in slender, steeple-like precipices. Over all we could see the white peak of the Finster-aarhorn, the tallest of the group, measuring 14,070 feet above the sea-level. I had never, upon any previous occasion, beheld celebrated mountain scenery which did not at first sight somewhat disappoint my extravagant expectations; but in scanning these prodigious precipices with my eye, I acknowledged that they filled up all the space which my imagination contained for mountain grandeur.

Our position for a full view was most advantageous, as we were upwards of 6000 feet above the level of the sea. We continued to follow the mountain track, which, after ascending for a while, brought us downwards. We were not within the line of perpetual snow, but there were fields of it here and there in our route; and the broken fragments of rock and torn turf bore evidence to the force of the spring avalanches. We came, in the course of our descent, to a more striking illustration of them, in that shattered pine forest which Byron says "reminded" him of himself and his family. Many of the trees had been snapped clear through, like the masts of a ship in a sea-fight, while others were torn in pieces, or bent to the earth. Those which still stood were stunted hoary-looking things, which seemed to have spent their lives in anxiously fortifying themselves against avalanches, and their bark was covered by long green lichens, which went out in the wind like so many streamers. A fine contrast to these harsher features of the scene, was a patch or rather field of rhododendron, covered all over with crimson blossom. The air was filled with a confused and mysterious murmur, as of the various tongues of the mountain whispering to each other in the water-fall, or the wind, or the waving tree. As noon came on, and the sun acted on the snow, a louder voice was occasionally to be heard, even that of the avalanche, such as we had heard it last night. We heard many of these falls before we could see any of them; and at last, when the eye detected one in the act, the effect was far from being so striking as we would have expected, from the deep roar with which it reverberated among

* It is greatly to be deplored that such Reports are still mainly inaccessible to the public; and even more to be regretted that, to obtain one Report, we must purchase the whole series, at a price, in this instance, of L.1. 7s. Hence, Mr Lefebvre's Report will, in fact, cost that sum. The last "Quarterly Review," with various periodicals and newspapers, have indeed epitomised it; but the mass of information which it contains is practically lost to the public, by whom, however, the cost of publication is defrayed.

the precipices. Instead of a large portion of the snowy coating of the mountain being hurled into the gien, there descended down one of the many grooves or fissures in the face of the precipice a long narrow stream of broken snow, not unlike the fall of the Staubbach. So large were the features by which it was surrounded, that this descent of several tons' weight of matter down a perpendicular height of probably more than a thousand feet, seemed to be a trifle.

As we descended the east side of the Wengern Alp, we saw the valley of Grindelwald open before us. It did not seem far off, yet its village was but a mere dot in the landscape, and its forests seemed like brushwood. Looking at the two ravines made on either side of the Schreckhorn, between it and the Eiger on the one side and the Wetterhorn on the other, I observed certain bluish-white collections of matter—they were like mountain streams, but rather too white. I was sorry to admit it, but there was no mistaking, in the peculiar form of these, the far-famed glaciers of the Grindelwald, so often represented in pictures. It was provoking to have one's associations about clefts hundreds of feet deep, and tall icebergs, met by something which looked like the heap of snow that might be removed from the area of a respectable citizen's house; but there could be no doubt, that when we reached these glaciers, we would find yawning crevices and precipices of ice, and the fact was only an additional evidence of the gigantic scale of everything around us. When we came near the end of the descent, we met a few tourists, and among others the friends who had walked with us from Lucerne to Brienz. Their leisure had nearly expired, and they were regretting the being obliged to leave the land of mountains, after visiting the Staubbach.

As we descended into the vale of the Grindelwald, being in a country more accessible by the char roads from Unterseen than the rocky ascent we were leaving behind, we had again cause for observing the ingenious schemes employed by the peasantry to ease the pockets of tourists of their spare money. One of the plans consisted of a mock wrestling match; and this failing to attract our attention, we next were assaulted by a jingling noise, and on turning a corner of rock we beheld two women, dressed in what might be called opera cantonal costumes, performing on musical-glasses. The great staple employment of the valley, however, consists in the opening of the gates to the fences which are here and there run along to prevent the cattle from straying. The attendance of a guide might be supposed to give the traveller a security for the accomplishment of this operation, but we generally found two urchins to relieve him of the onerous task, and on more than one occasion we saw a rush made to shut the gate (which had been accidentally left open) before we reached it.*

We dined at Grindelwald, and though I often think that tourists might find something more interesting to describe than the precise composition of every meal they eat, I must describe this dinner. The waiter, when we ordered it, gave a doubtful look, and it was pretty evident that something concerning it was pressing on his mind. No hesitation was expressed, however, and measures were taken which seemed to announce that the meal was to proceed on a large scale. At length appeared the flustered and important face of the waiter, half hidden behind a large covered dish. The dish was set on the table, the cover removed with a flourish, which carried with it, as expressively as a flourish could do, the exclamation, "Now for it!"—and behold, at the bottom of the dish lay three small fishes, each about three and a half inches long! We lay back on our respective chairs, and fell into a fit of laughter; and surely we were entitled to do so. But we did not forget that the matter required to be handled in a practical manner, and instead of creating a storm, which might have been useful on such an emergency in the Strand, we proceeded to draw lots for this first course. The second course consisted of three pieces of mutton chop, on precisely the same scale, and this was appropriated by lot cast between the remaining two of us. Finally came a cubical morsel of black beef-steak, which fell to the lot of the unsuccessful yet not least fortunate lot drawer. It was now time, we thought, to look the matter in the face, and we demanded if there were aught else to be had. Some little crabbed wild strawberries were produced, but that was not precisely the thing we wished. At last, by means of bread and scrapings of abandoned cold meat, we did manage to get enough for our wants, and were therewith content. It is fair to add, that however much the dinner was deficient in the requisites of a first-rate hotel, there was one feature in which the landlord seemed resolved not to fall below his caste—namely, the charge.

As we proposed to proceed as far as Meyringen before we halted for the night, we thought it as well to strike a bargain with our guide. The allowance for a guide, according to the tariff, is five francs a-day; but we found that there was more than one element to be taken into the calculation, and our friend maintained that for such a distance as we were travelling on that

* [The Swiss are not the sole practisers of schemes to ensnare tourists of cash. The traveller is exposed to similar devices in various parts of England and Scotland: we need only allude to the hosts of boys and girls in the Isle of Wight, at the Falls of Clyde, and wherever else a penny can be picked up by acting as conductors or gate-openers. Much of this semi-mendicancy is caused by the lavish way in which the English scatter their money while on holiday excursions.—Ed. C. E. J.]

day—thirty-six miles—his proper fee was fifteen francs. He was backed by the innkeepers, and very probably it was all according to law; but it is as well for travellers to know, that if five francs be a day's pay, it covers only a walk of twelve miles. Our first destination, before ascending the pass of the Great Scheideck, was to visit the upper glacier. As we neared it, our guide called at a sort of cottage, where it seems the keeper of the glacier resides, who forthwith appeared with a hatchet. I recollect having enjoyed a hearty laugh at the simplicity of a Cockney, who, intending to visit "the steep frowning glories of dark Loch-na-gar," asked if he would not find a cottage at the foot of the hill, with people in it who would show him to the top. The notion was taken from St Paul's and the Monument; but here it was realised on one of Nature's most untamable objects; and the glacier had literally its keeper, without whose sanction you can no more get access to it than you can get a seat at the theatre without the connivance of the box-keeper or some such official. To render it clear how any such appropriation could be successful, it is necessary to explain that this glacier is merely a tail, as it were, of a vast ocean of ice, which covers 200 square miles of the surface of these mountains; and that, as it descends through a very narrow and uneven valley, the masses of ice become shattered and tossed together, so as to present no even surface—nothing but a set of gigantic splinters heaped together, among which it is impossible to proceed for any distance, and on which one cannot enter except by steps cut in the ice by a hatchet. We thought that for his fifteen francs it was the duty of our guide to give us the necessary facilities, and we declined the service of him of the hatchet. I must confess to the folly of attempting to smuggle a stepping on the glacier; but the effort was ill-advised, and I tumbled flat on my back, happy that an eminence prevented the guide from seeing my fall. The step-maker seemed quite accustomed to such refusals; and so, carefully obliterating the notches he had cut, he bade us a cheerful good evening. Our guide had begun to grow a little crusty from our refusing to honour the various drafts he had been making on our patronage in favour of the gate-openers and others, and this proceeding completed our degradation in his eyes. He had hitherto made us civil answers, his affirmatives being "*Ya wohl, hérr,*" which may be translated, "Yes indeed, sir;" but he now suddenly sunk into a surly *ya*. A little civility brought back the *wohl*; but he never recovered the *hérr* till it was jerked out of him, as it were, by the descent of his fifteen francs into his palm.

In vindication of our desertion of the glacier of the Grindelwald, we have to plead that we had larger designs on glaciers than it seemed likely we would here be able to execute; how far they were successful, the reader will hereafter have an opportunity of knowing. As we retired from its edge, where the ice was dirty and muddy, and ascended in front of it, we had a more full view of the expanse of the glacier. It improved on us prodigiously. We could see that far up the ice was bright and blue, that it was cleft by numerous crevices, and ran up into numberless peaks. Our path lay north-east, over the pass of the Great Scheideck, which rose steeply above us. The top of the pass is 6700 feet above the sea, and as the afternoon sun beat hot upon us, it was warm work. Multitudes of large grasshoppers, about the size of kitty-wrens, were leaping about, and making the air alive with their chirruping. Astonished by their unwanted size, I wished to carry one of them home as a trophy of the Alps. It was not difficult to make the acquisition; but after I had crushed the creature to death, my heart misgave me for having ruthlessly extinguished so much happy and harmless vitality. The Wetterhorn, or peak of Storms, one of the great chain of precipitous mountains, rises almost straight up from the pass—a wall of rock with snow above and in all its interstices. Here and there we crossed masses of snow which the monster had shaken from his sides in the earlier part of the year, a circumstance which showed how dangerous the pass must be at some seasons.

When we crossed the summit of the pass, the scene was materially changed. We had left the higher alps of snow and bare rock behind; and the hills before us, though lofty, were not so precipitous, and were covered with trees or other verdure. Looking at them as we passed by the side of a brawling torrent, and under the shade of lofty pines, the whole effect strikingly reminded us of the scenery of the north of Scotland, and it recalled to my mind summer evenings of old spent in wandering among the forests of Braemar. On the left, we came almost unexpectedly on one of the falls of the Reichenbach. The torrent, in its form and the character of the immediately surrounding scenery, reminded us of Foyers; and the grand proportions of the neighbouring mountains made it seem not much larger than that cataract. Not far from the fall we saw a rather elegant-looking small inn, to the door of which our guide marched up with the firm and unhesitating step of one who is performing precisely what is his duty. When we followed him to ask the meaning of this movement, we were met by a fashionably dressed young lady, who gave us a most courteous welcome. When it was explained to her that our sole motive for intruding on her premises was to recover possession of the person of our recreant guide, she expressed very strong surprise, assured us that, as a matter of course, all travellers towards

Meyringen stayed in her inn all night, that it was far too late to proceed, &c. &c., and concluded by recommending the peculiar attractions of her waterfall. This part of her argument we answered somewhat in the spirit of competition, by telling her that we had as good a waterfall of our own at home (namely, the fall of Foyers); and she, not to be wanting in courtesy, rejoined that she had heard of it (a statement we doubted), and that it was (professionally speaking) well reported of. Our British obstinacy was all this time rising within us, in the form of a resolution not to be "done;" and we carried off our guide in triumph, notwithstanding that he was, or pretended to be, somewhat fatigued.

The vale of Meyringen, or, as it is otherwise termed, of Haali, presented to us a lovely prospect in the stillness of the evening. It lay more than 2000 feet beneath us when we first caught a glimpse of it. It is a plain, verdant with forest and pasture, and dotted with villages; while on either side the mountains rise steep and abrupt like walls. It seemed but a narrow vale at first, but as we descended its dimensions widened to our view, till at last night shut out the spectacle. In the gloom, we approached another of the falls of the Reichenbach. The great white mass glimmered fearfully and mysteriously through the darkness, and its sullen roar was the more awfully distinct that the rest of nature was silent. A weary way was the latter part of the descent to Meyringen. The path is renowned for its steepness, and as it is laid with large stones, its descent is like going down a ruined stair 2000 feet long. It was a singular contrast to the darkness, and the cataracts, and the rocks, to find ourselves in a large and swarming hotel brilliantly lighted up, and with a multitude of lively people seated at supper.

BIOGRAPHIC SKETCHES.

MADAME D'ARBLAY.

FRANCES BURNEY, by marriage Madame D'Arblay, was born at Lynn-Regis in Norfolk, on the 13th of June 1752. At that period her father, Dr Charles Burney, a man of very superior attainments, filled the comparatively humble office of organist to the burgh, having accepted of it in the hope of regaining his health, injured by his ardent and laborious prosecution of the study and practice of musical composition in the metropolis. In childhood, Frances Burney showed a marked backwardness in learning her letters, and even at eight years of age was unable to read. But, though common onlookers called her in consequence "the little dunce," an under-current of shrewd observation and lively invention occasionally gleamed through her natural shyness, which led her intelligent mother to stand out against the general opinion, and to say frequently that "she had no fear about Fanny." When with her young companions, and unembarrassed by the presence of strangers, the child would at times display her latent powers of imagination, by imitating such actors as she chanced to have seen, and composing long speeches for them; or she would get up dramatic scenes purely of her own invention. Many readers will remember that another lady of distinguished literary talent, Miss Landon, first showed her abilities by similar exercises of the fancy among the playmates of her youth.

In the year 1760, Dr Burney returned to London with invigorated health, and renewed the acquaintance which he had previously formed with many of the eminent literary men of the age. His daughter Fanny, who at length, at the age of ten, acquired the arts of reading and writing, was soon able to make sharp and shrewd observations on the scenes around her. It is remarkable that she showed a turn for scribbling some years before she began to read with any great diligence, proving that her perceptive faculties were naturally acute in no ordinary degree, while that reflective turn of mind which finds its chief food in books did not so markedly characterise her. As circumstances fell out, she was left in a great measure to educate herself. Her mother died soon after the family removed from Norfolk to London; and when Esther and Susan, her elder and younger sisters, were sent for two years to a Parisian school, Dr Burney did not deem it right that his second daughter should go with them, because she displayed so much affection for her maternal grandmother, a Roman Catholic, that he was afraid of her there becoming attached to the religion of that beloved relative. Frances remained at home, accordingly, and was left in a great measure to her own exertions for self-improvement. Her chief spur lay in her unbounded love for her father, who, though he could not spare time to superintend her educational pursuits, was yet able to give hints which were of great service, these being always regarded by his daughter as laws. As her sister Susan well remarked, on her return from Paris, "sense, sensibility, bashfulness (diffidence before society), and even a degree of prudery," became the chief characteristics of Frances Burney, under the course of training described.

Society was, in many respects, the main school in which Miss Frances Burney's observant powers found the means of development. Her father, who took for his second wife a lady of great merit and amiability, was so highly esteemed as to gather around him a circle of friends, whose intimacy could not but be most improving to his children, and among whom may be mentioned David Garrick, Dr Hawkesworth, the poets Armstrong and Mason, Sir Robert Strange, and Barry

the painter. Dr Burney also numbered Samuel Johnson and the Thrales among his friends. The mind of Miss Burney was not idle while mixing in the society of these and other parties, and she continued secretly and perseveringly to expend her whole leisure time in writing tales and such-like short pieces, her sister Susan being her sole confidant in this employment. But her mother-in-law began to suspect the truth, and took occasion so seriously, though without any direct personal application, to condemn the scribbling mania in young women, that the poor incipient authoress, at the call of duty, made a bonfire of her compositions, her sister Susan standing weeping by all the while. But the propensity to stain paper is not so easily repressed, and Miss Burney, after her pen had for a time lain dormant, though her brain remained busy with the task of composition, set down on paper the story of "Evelina, or a Young Lady's Entrance into the World." She completed at first only the first two of the four volumes, and with great secrecy, her pursuance of such a task being known but to her brother and sisters. An application was then made to Doddsley, and afterwards to Lowndes, the publishers, and the latter undertook to issue it when finished. Before that time, however, Miss Burney deemed it right to tell her father of the matter. "Seizing, therefore, an opportunity when her father was bidding her a kind farewell, preparatory to a Chesington visit, she avowed to him, with many blushes, 'her secret little work, and her odd inclination to see it in print;' adding, that her brother Charles would transact the affair with a bookseller at a distance, so that her name could never transpire, and only intreating that he would not himself ask to see the manuscript. 'His amazement was even surpassed by his amusement; and his laugh was so gay, that, revived by its cheering sound, she lost all her fears and embarrassment, and heartily joined in it, though somewhat at the expense of her new author-like dignity.' Dr Burney thought her project as innocent as it was whimsical; and kindly embracing her, enjoined her to be careful in guarding her own incognito, and then dropped the subject without even asking the name of her book."

A diary, commenced after the publication of "Evelina" in January 1778, informs us minutely of the feelings of the authoress when her novel met decisively with the approbation of the world. There is something very pleasing in her expressions of delight when she records the praises of her beloved father. He declared it to be one of the best novels which he knew; and in reality the work certainly approaches more closely in wit and humour to those of Fielding and Smollett than any other novel of its day, while it stands incomparably above these models themselves in purity. But though the account of Miss Burney's feelings, when informed of the approval of her father, be sufficiently pleasing, we must say that even the youth of the writer, and the intended confinement of her diary to the eyes of her sisters, cannot make us look with toleration on all the butterings and flutterings, shiverings and quiverings, blushings and flushings, set down relative to Miss Burney's state of authorship in the diary—ultimately arranged by herself, by the way, for the world's eye, and recently published. The entire three volumes, now before us, are stuffed with what this one said, and that one wrote, about Miss Burney's novels, while all the time the diarist is prettily disclaiming all sense of merit, and affecting to believe one-half of such commendations to be fudge. This sort of thing is carried to an extent, in short, which nearly blinds one to the real humour and tact for observation discernible in many of the pictures of society given by the fair diarist. To prove our words, let us open a page at random. It is page 64, vol. i., and the first sentence that there meets the eye is one from the lips of Dr Johnson, with whom, as well as with Mrs Thrale, Miss Burney became very intimate. "I am too proud now to eat [of mutton]," says the doctor; "sitting by Miss Burney makes me very proud to-day." Turn over a leaf of the diary, and lo! again says the doctor, alluding to a lady having called for a pint of ale, "Madame Duval could not have done a grosser thing." Madame Duval being a character in "Evelina," our authoress here diarrises: "Oh, how every body laughed! and to be sure I did not glow at all, nor munch fast, nor look on my plate, nor lose any part of my usual composure!" Sometimes Miss Burney punished her vanity by these affectations. For example, "a gentleman," says she, "inquiring for my father, was asked into the parlour. The then inhabitants were only my mother and me. In entered a square old gentleman, well-wigged, formal, grave, and important. He seated himself. My mother asked if he had any message for my father? 'No, none.' Then he regarded me with a certain dry kind of attention for some time; after which, turning suddenly to my mother, he demanded, 'Pray, ma'am, is this your daughter?' 'Yes, sir.' 'Oh! this is Evelina, is it?' 'No, sir,' cried I, staring at him, and glad none of you were in the way to say Yes. 'No!' repeated he, incredulous; 'is not your name Evelina, ma'am?' 'Dear, no, sir, again quoth I, staring harder. 'Ma'am,' cried he, drily, 'I beg your pardon! I had understood your name was Evelina.' And soon after, he went away. When he put down his card, who should it prove but Dr Franklin!" Miss Burney would have liked well enough to be personally known to Dr Franklin as the authoress of "Evelina."

Between 1778 and 1786, at which latter period a

great change took place in Miss Burney's situation by her becoming Mistress of the Robes to the Queen, the authoress of "Evelina" added the novel of "Cecilia" to the number of her works, and sustained her credit by it in the literary world. Her time in the interval was spent chiefly in literary society, and the most interesting parts of the diary refer to Samuel Johnson, Mrs Thrale, Burke, Seward, and Boswell. A specimen of her anecdotes may be here given; and firstly, let us give a sample of Dr Johnson's domineering disposition, and the way in which he made all bow to him. "Mrs Burney had on a very pretty linen jacket and coat, and was going to church; but Dr Johnson, who, I suppose, did not like her in a jacket, saw something was the matter, and so found fault with the linen; and he looked and peered, and then said, 'Why, madam, this won't do! you must not go to church so!' So away went poor Mrs Burney and changed her gown! And when she had done so, he did not like it, but he did not know why; so he told her she should not wear a black hat and cloak in summer. Oh, how he did bother poor Mrs Burney; and himself too, for if the things had been put on to his mind, he would have taken no notice of them." Again, for the other side of the picture. "At tea-time the subject turned upon the domestic economy of Dr Johnson's own household. Mrs Thrale has often acquainted me that his house is quite filled and overrun with all sorts of strange creatures, whom he admits for mere charity, and because nobody else will admit them—for his charity is unbounded, or, rather, bounded only by his circumstances. Mrs Thrale—'And pray, who is clerk of your kitchen, sir?' Dr Johnson—'Why, madam, I am afraid there is none; a general anarchy prevails in my kitchen, as I am told by Mr Levat, who says it is not now what it used to be!' Mr Levat, I suppose, sir, has the office of keeping the hospital in health; for he is an apothecary.' Levat, madam, is a brutal fellow, but I have a good regard for him; for his brutality is in his manners, not his mind.' 'But pray, sir, who is the Poll you talk of? She that you used to abet in her quarrels with Mrs Williams, and call out, 'At her again, Poll! Never flinch, Poll!' 'Why, I took to Poll very well at first, but she went do upon a nearer examination.' 'How came she among you, sir?' 'Why, I don't rightly remember, but we could spare her very well from us. Poll is a stupid slut; I had some hopes of her at first; but when I talked to her tightly and closely, I could make nothing of her; she was wiggle-waggle, and I could never persuade her to be categorical. I wish Miss Burney would come among us; if she would only give us a week, we should furnish her with ample materials for a new scene in her next work.'"

Miss Burney began her attendance at court in July or August 1786. Kind though George III. and Queen Charlotte ever were to her, the situation of Mistress of the Royal Robes was rendered very disagreeable by the German women about the queen, and, above all, by the stiff etiquette practised at court. Our space will not permit us to enter on the scenes which Miss Burney witnessed in her court place, but we may point attention to these as among the most amusing things in her journal. We learn from them that the system of rigid, unbending ceremony prevalent in palaces, which wears out the souls and bodies alike of the chamber grooms and other attendants, is not less fatiguing, in reality, to the royal parties in whose honour it is maintained, and that their lives are but one long yawn. Such, at least, was the case with the third George and his queen; and such must ever be most especially the case where the royal personages, like them, are good dull folks, of exemplary life.

At the end of five years, Miss Burney's spirits and health fairly sunk under her "honourable" office, and she was forced to quit it. Shortly afterwards, she became acquainted with Count Alexander Piochard D'Arbly, an emigrant artillery officer of France, and an attachment took place, which terminated in their union in 1793. Led by this event to take an interest in the French refugees, she drew up some "Reflections relative to the Emigrant Clergy of France," and published the essay for their benefit. Another production from her pen was a tragedy entitled "Edwy and Elgitha," produced at Drury Lane in 1795. It attracted no attention, though her ordinary style of literary composition was most certainly dramatic in no ordinary degree, as her novels and memoirs prove beyond question. So obvious was this quality of her genius, indeed, that Sheridan and others had long before endeavoured to direct her attention to the stage. Some incomplete pieces, however, were the only result. Her reputation as the first novelist of the time seems not to have been affected by the mediocre success of her tragedy, since, in 1796, a new novel from her pen, styled "Camilla," received subscriptions to the amount of three thousand guineas. When we consider that she got but twenty pounds for "Evelina," a novel of far greater merit, the dependence of literary earnings upon the repute of the author becomes strikingly apparent. With the proceeds from her novel, which her husband's position rendered not unimportant, Madame D'Arbly built a neat villa or hermitage, which she called "Camilla Cottage," and in which she spent her days in quiet, until the peace of 1802 attracted her husband to Paris. Madame D'Arbly accompanied him, and, contrary to intention, found herself obliged to remain there. M. D'Arbly having been led to form connexions with

Napoleon which he afterwards could not in honour retract from. The Russian campaign of 1812 gave the subject of our memoir an opportunity of returning to England, where her husband joined her, and remained till the close of his life in 1818.

Two additional works, "The Wanderer," a novel published in 1814, and "Memoirs of Dr Burney," issued in 1832, were the fruit of Madame D'Arbly's leisure hours, subsequently to her return to England. For the first of these works she received £1500, though it was less esteemed, and, indeed, possessed much less merit, than any of her earlier novels; the last of them, though marked by blemishes similar to those of her posthumously published "Diary," and bearing some tokens, moreover, of the natural decline of the author's powers, contains many interesting anecdotes relative to the eminent parties with whom Dr Burney associated. For some years after her return to England, Madame D'Arbly had the pleasure of witnessing the high estimation in which her brothers Admiral James Burney, and Dr Charles Burney, the celebrated Greek scholar, were held; and she also enjoyed the society of her son, the Rev. Alexander D'Arbly, curate of Camden Town Chapel. He died, however, in 1837, and his mother did not long survive him. She breathed her last at Bath, on the 6th of January 1840, in her eighty-eighth year.

Madame D'Arbly was almost the last, if not the very last, surviving link betwixt the present age of literature and that of Johnson and Goldsmith. She was undoubtedly a woman of fine talents, and her novels of "Evelina" and "Cecilia" are among the few of the old school which reward perusal, and merit preservation. They hold a middle place betwixt those of Richardson and Fielding, having much of the pure sentiment of the former combined with no slight degree of the wit and humour of the latter novelist. If just, as we believe it to be, this view of the matter places Madame D'Arbly in no mean rank among the novelists of Britain.

LIEBIG'S ANIMAL CHEMISTRY.

RATHER more than twelve months ago,* we presented a brief analysis of one of the greatest works of modern times—"Organic Chemistry in its Application to Agriculture and Physiology," by Dr Justus Liebig, Professor of Chemistry in the University of Giessen, a small town in Germany. The work had been presented in the form of a report to the British Association at its meeting in 1840, and purported to be only the first of a series of treatises completing the subject. At the late meeting of the association at Manchester, the learned doctor presented the second part of his great undertaking, through the medium of Dr Lyon Playfair; and from the report of proceedings on the occasion, the country has already acquired an idea of what constitutes the subject matter of this new addition to Liebig's views of organic chemistry. As we consider this a highly important branch of scientific inquiry, with which it is proper the people should be made acquainted, we propose to give an outline of the professor's discoveries and observations, drawn from a more accurate source than the rough notes of the newspaper reporters. We take Liebig's report as lately published in the form of an octavo volume, and endeavour to present the same kind of analysis of its contents as we did of the preceding.†

The first work referred to the chemistry of vegetable life; that is, the character of those elementary bodies which went to the formation of vegetables, as, for example, gases and the component parts of manures; the present refers to the chemistry of animal organisation, including the principles of vitality, assimilation, nutrition, heat, consumption of parts, secretion, and other conditions of animal existence. Thus, an extensive series of phenomena is treated of, and questions raised of the greatest importance in physiological science. The learned investigator commences with the subject of vitality—"a certain remarkable force, the source of growth, of increase of mass, and of reproduction, or of supply of the matter consumed; a force in a state of rest."

"The increase of mass in a plant," he proceeds to say, "is determined by the occurrence of a decomposition which takes place in certain parts of the plant under the influence of light and heat. In the vital process, as it goes on in vegetables, it is exclusively inorganic matter which undergoes this decomposition; and if, with the most distinguished mineralogists, we consider atmospheric air and certain other gases as minerals, it may be said that the vital process in vegetables accomplishes the transformation of mineral substances into an organism endowed with life—

that the mineral becomes part of an organ possessing vital force.

The increase of mass in a living plant implies that certain component parts of its nourishment become component parts of the plant; and a comparison of the chemical composition of the plant with that of its nourishment makes known to us, with positive certainty, which of the component parts of the latter have been assimilated, and which have been rejected.

The observations of vegetable physiologists and the researches of chemists have mutually contributed to establish the fact, that the growth and development of vegetables depend on the elimination of oxygen, which is separated from the other component parts of their nourishment. In contradistinction to vegetable life, the life of animals exhibits itself in the continual absorption of the oxygen of the air, and its combination with certain component parts of the animal body. While no part of an organism being can serve as food to vegetables, until, by the processes of putrefaction and decay, it has assumed the form of inorganic matter, the animal organism requires, for its support and development, highly organised atoms. The food of all animals, in all circumstances, consists of parts of organisms."

Then, with respect to the faculty of locomotion—"Everything in the animal organism to which the name of motion can be applied, proceeds from the nervous apparatus. The phenomena of motion in vegetables, the circulation of the sap, for example, observed in many of the characeae, and the closing of flowers and leaves, depend on physical and mechanical causes. A plant is destitute of nerves. Heat and light are the remote causes of motion in vegetables; but in animals we recognise in the nervous apparatus a source of power, capable of renewing itself at every moment of their existence.

While the assimilation of food in vegetables, and the whole process of their formation, are dependent on certain external influences which produce motion, the development of the animal organism is, to a certain extent, independent of these external influences, just because the animal body can produce within itself that source of motion which is indispensable to the vital process.

Assimilation, or the process of formation and growth—in other words, the passage of matter from a state of motion to that of rest—goes on in the same way in animals and in vegetables. In both, the same cause determines the increase of mass. This constitutes the true vegetative life which is carried on without consciousness.

The activity of vegetative life manifests itself in vegetables with the aid of external influences; in animals, by means of influences produced within their organism. Digestion, circulation, secretion, are no doubt under the influence of the nervous system; but the force which gives to the germ, the leaf, and the radical fibres of the vegetable the same wonderful properties, is the same as that residing in the secreting membranes and glands of animals, and which enables every animal organ to perform its own proper function. It is only the source of motion that differs in the two great classes of organised beings."

Passing over some observations on the insufficiency of all theory without a close examination of facts, the author goes on to state that all increase to the body is carried on through the agency of deposits from the blood. His remarks on this transformation are startling:—"All the parts of the animal body are produced from a peculiar fluid, circulating in its organism by virtue of an influence residing in every cell, in every organ, or part of an organ. Physiology teaches that all parts of the body were originally blood, or that at least they were brought to the growing organs by means of this fluid. The most ordinary experience further shows, that at each moment of life, in the animal organism, a continued change of matter, more or less accelerated, is going on; that a part of the structure is transformed into unorganised matter, loses its condition of life, and must be again renewed. Physiology has sufficiently decisive grounds for the opinion that every motion, every manifestation of force, is the result of a transformation of the structure or of its substance; that every conception, every mental affection, is followed by changes in the chemical nature of the secreted fluids; that every thought, every sensation, is accompanied by a change in the composition of the substance of the brain."

Vitality is a consequence of the action of certain transformations; we can discover the laws which govern the transformation, but we can never learn what life—the ultimate result—actually is. In such inquiries, "Wonders surround us on every side. The formation of a crystal, of an octahedron, is not less incomprehensible than the production of a leaf or of a muscular fibre; and the production of vermillion from mercury and sulphur is as such an enigma as the formation of an eye from the substance of the blood.

The first conditions of animal life are nutritious matters and oxygen, introduced into the system. At every moment of his life, man is taking oxygen into his system, by means of the organs of respiration; no pause is observable while life continues.

The observations of physiologists have shown that the body of an adult man, supplied with sufficient food, has neither increased nor diminished in weight at the end of twenty-four hours; yet the quantity of oxygen taken into the system during this period is very considerable.

* No. 465, May 15, 1841.

† Animal Chemistry, or Organic Chemistry in its Applications to Physiology, by Justus Liebig. Edited by W. Gregory, Professor of Medicine, Aberdeen. London: Taylor and Walton, Upper Gower Street. 1842.

According to the experiments of Lavoisier, an adult man takes into his system, from the atmosphere, in one year, 746 pounds—according to Menzies, 837 pounds—of oxygen; yet we find his weight, at the beginning and end of the year, either quite the same, or differing, one way or the other, by at most a few pounds.

What, it may be asked, has become of the enormous weight of oxygen thus introduced, in the course of a year, into the human system?

This question may be answered satisfactorily: no part of this oxygen remains in the system, but it is given out again in the form of a compound of carbon or of hydrogen.

The carbon and hydrogen of certain parts of the body have entered into combination with the oxygen introduced through the lungs and through the skin, and have been given out in the forms of carbonic acid gas and the vapour of water.

At every moment, with every expiration, certain quantities of its elements separate from the animal organism, after having entered into combination, within the body, with the oxygen of the atmosphere.

If we assume, with Lavoisier and Séguin, in order to obtain a foundation for our calculation, that an adult man receives into his system daily 32½ ounces (46,037 cubic inches = 15,661 grains, French weight) of oxygen, and that the weight of the whole mass of his blood, of which 80 per cent. is water, is 24 pounds, it then appears, from the known composition of the blood, that in order to convert the whole of its carbon and hydrogen into carbonic acid and water, 64,103 grains of oxygen are required. This quantity will be taken into the system of an adult in four days five hours.

Whether this oxygen enters into combination with the elements of the blood, or with other parts of the body containing carbon and hydrogen, in either case the conclusion is inevitable, that the body of a man who daily takes into the system 32½ ounces of oxygen must receive daily, in the shape of nourishment, as much carbon and hydrogen as would suffice to supply 24 pounds of blood with these elements; it being presupposed that the weight of the body remains unchanged, and that it retains its normal condition as to health. This supply is furnished in the food.

It appears that a man, taking moderate exercise in the open air, requires 37 ounces of oxygen daily. Since no part of this large supply of oxygen "taken into the system is again given off in any other form but that of a compound of carbon or hydrogen—since, further, the carbon and hydrogen given off are replaced by carbon and hydrogen supplied in the food—it is clear that the amount of nourishment required by the animal body must be in a direct ratio to the quantity of oxygen taken into the system.

Two animals, which in equal times take up by means of the lungs and skin unequal quantities of oxygen, consume quantities of the same nourishment which are unequal in the same ratio.

The consumption of oxygen in equal times may be expressed by the number of respirations; it is clear that, in the same individual, the quantity of nourishment required must vary with the force and number of the respirations.

A child, in whom the organs of respiration are naturally very active, requires food oftener than an adult, and bears hunger less easily. A bird, deprived of food, dies on the third day; while a serpent, with its sluggish respiration, can live without food three months and longer. The number of respirations is smaller in a state of rest than during exercise or work. The quantity of food necessary in both conditions must vary in the same ratio. An excess of food is incompatible with deficiency in respired oxygen, that is, with deficient exercise; just as violent exercise, which implies an increased supply of food, is incompatible with weak digestive organs. In either case the health suffers. But the quantity of oxygen inspired is also affected by the temperature and density of the atmosphere.

The capacity of the chest in an animal is a constant quantity. At every respiration a quantity of air enters, the volume of which may be considered as uniform; but its weight, and consequently that of the oxygen it contains, is not constant. Air is expanded by heat, and contracted by cold, and therefore equal volumes of hot and cold air contain unequal weights of oxygen. In summer, moreover, atmospheric air contains aqueous vapour, while in winter it is dry; the space occupied by vapour in the warm air is filled up by air itself in winter; that is, it contains, for the same volume, more oxygen in winter than in summer.

In summer and in winter, at the pole and at the equator, we respire an equal volume of air; the cold air is warmed during respiration, and acquires the temperature of the body. To introduce into the lungs a given volume of oxygen, less expenditure of force is necessary in winter than in summer; and for the same expenditure, more oxygen is inspired in winter.

It is obvious, that in an equal number of respirations we consume more oxygen at the level of the sea than on a mountain. The quantity both of oxygen inspired, and of carbonic acid expired, must therefore vary with the height of the barometer.

The oxygen taken into the system is given out again in the same forms, whether in summer or in winter; hence we expire more carbon in cold weather, and when the barometer is high, than we do in warm weather; and we must consume more or less carbon in our food

in the same proportion; in Sweden more than in Sicily; and in our more temperate climate a full eighth more in winter than in summer.

Even when we consume equal weights of food in cold and warm countries, infinite wisdom has so arranged, that the articles of food in different climates are most unequal in the proportion of carbon they contain. The fruits on which the natives of the south prefer to feed do not, in the fresh state, contain more than 12 per cent. of carbon, while the bacon and train oil used by the inhabitants of the arctic regions contain from 66 to 80 per cent. of carbon.

It is no difficult matter, in warm climates, to study moderation in eating, and men can bear hunger for a long time under the equator; but cold and hunger united very soon exhaust the body.

The mutual action between the elements of the food and the oxygen conveyed by the circulation of the blood to every part of the body is the source of animal heat.

The author proceeds to show how food is the fuel that is constantly required to feed the animal heat; and his observations on this and other interesting parts of his subject will engage our attention in a concluding notice of his work.

THE PLEASURE SEEKER.

(FROM BIZARRE FABLES, a small and amusing work which we lately recommended to notice.)

At the close of a sultry day in August, when the sunlight was slowly fading from the sky, and yielding to the mild splendour of the full harvest moon; when the refreshing coolness and delicious calmness of the evening invited all who had sound limbs to walk the earth, and all who had sound lungs to breathe the air; at this time, and in a spot surrounded by the most beautiful scenery in England, a young man lighted his lamp, closely shut his window, drew the curtain, and, opening a book, sat down at the table to read.

This young man did not consider himself mad—neither was he considered so by others. Let me, then, account for these mad proceedings.

Some three months before, he had been conveyed to the cottage where he now resided, in so wretched a state of health that life could hardly be said to inspire him. By quiet, fresh air, and simple fare, he had been restored nearly to perfect convalescence; but languor and dejection still remained—the residue of the utter mental and bodily prostration which had so lately passed away.

Walter Everett, the invalid, was by profession a Thinker, and had brought on his illness by the exercise of his profession. He had committed the double sin of overworking the brain, and underworking every other bodily organ, and the penance he suffered was severe in proportion. Reading and meditation carried to excess are as destructive, and quite as foolish, as other modes of dissipation.

On this particular evening, for the first time since his illness, he resolved to study as of old. The brightly-burning lamp, the shining white page, again were before him, and all his former feeling of subdued enthusiasm came back with the familiar appearances. The shaken nerves, the dim eyes, were forgotten; and the study which had made them so was remembered only for the benefits it could yield.

But was there no one near to mark this rash self-will, and gently to remonstrate? Lucy, who had sympathised with him in sickness and recovery—who had attended on and cheered him like a ministering angel—was near. She no sooner witnessed the closing of the window, the lighting of the lamp, and the opening of the book, than she stole softly behind his chair, and bringing her pretty face over his shoulder, looked on the page with a playful, scornful air. "What is this, Walter?" she said; "philosophy! nonsense! Shut up your philosophy: we want none this evening."

"And why not this evening, dear Lucy?"

"Because I am determined that you shall not bring on a return of your illness," replied Lucy. "You have not studied now for six months, and you must begin this evening, forsooth! I'll not allow it."

"You are peremptory, Lucy!" said Walter, with a smile.

"Peremptory!" exclaimed Lucy; "yes, it is enough to make any one peremptory. Tell me," continued she demurely, "have you not often declared that the great object of existence to a rational being is the discovery of the means of producing pleasure and the means of producing pain—the adoption of the first, and the rejection of the last; moreover, that a pleasure which is evidently inferior to another pleasure, or which is necessarily mixed up with, or followed by, a greater pain, should be avoided, and that only enjoyed which is in its nature of the highest and purest. Have you not declared all this, and more than this; a great deal more than I can either remember or understand?"

"Granted!" replied Walter, laughing. "Proceed, most philosophical madam!"

"Then, most unphilosophical sir," exclaimed Lucy, "I charge you with acting against your own doctrine. You have done so habitually, and, undeterred by experience, you wish to do so now."

"Ha, Lucy!" exclaimed Walter; "that is a serious charge, indeed! Explain, my dear girl, explain!"

"I will," said Lucy; "and undertake to convert you before I finish my discourse. A pleasure is not to be enjoyed, you say, which is evidently inferior to

another pleasure, or which is necessarily mixed up with, or followed by, a greater pain. Now, what caused your illness, pray? Why, your violation of both these maxima. You secluded yourself eternally to read, as if reading were the highest pleasure in the world; and you read with such infatuated eagerness as to ruin your health. Was this conduct worthy of a rational being?"

"I plead guilty to the second count of your indictment," said Walter, "but not to the first. I did read to excess, I own; but reading itself is, certainly, to use your own words, a pleasure in its nature of the highest and purest."

"Wait a little," said Lucy, "I have not half done with you yet. I maintain that you injured your mental more than your bodily health, and have actually rendered yourself incapable of distinguishing between the different degrees of pleasure. You have read until you can relish nothing but reading. Your highest pleasure has become—the consideration of the means to arrive at pleasure. You have chased a desired thing so long, that you prefer the chase to the possession of the object chased. I accuse you of being a mere pleasure-seeker, a self-denying pleasure-seeker, who, with what he seeks within his grasp, seizes it not at once, but vainly schemes how to seize it in the cleverest way; or how to seize something else more distant, and therefore more attractive. You do not take the best, you know, but must first ascertain that it is the best existing. Whilst common mortals are enjoying, you are reasoning about enjoyment."

"Go on, Lucy!" said Walter, smiling, but faintly.

Lucy continued:—"You have worn out your eyes, bent your shoulders, and confused your brain, by thinking, and the study of others' thinking. And for what? To be confuted by an untaught girl—even by your own poor Lucy! Ah! my dear philosopher, be advised. Do what I tell you, and you will never do wrong!"

"And what is that, Lucy?" inquired Walter. "Pronounce, my pretty instructress, for pupil I must call you no longer."

"Thus stands the case," said Lucy, deliberately—"you have been laid up ill in this cottage for three months, and are now much recovered. The pleasure which I recommend to you, then, is—the enjoyment of this charming evening. It is a pleasure great in itself, and one that will be followed by no atoning pain. You should walk out, if circumstances allowed it; but this I do not recommend, because you are weak, and the injury caused by walking might be greater than the benefit."

"Logically put!" exclaimed Walter. "Say on, wisest of thy sex!"

"Well," continued Lucy, "what is the inference? The evening air being good for you, and you being unable to go out at the door to meet it, the rational course is, that it should come in at the window to meet you. In other words, you must be careless and happy, instead of meditative and miserable. Here are two chairs by the window. You will sit in one, and I will sit in the other; the casement shall be opened, and the book shall be shut; the lamp shall be put out, and the moonlight shall be let in. Instead of looking on wearying letters, you shall look on trees, and grass, and flowers; and you shall talk love to me, and not think philosophy to yourself. Is it agreed, Walter?"

"No, no, Lucy!" exclaimed Walter; "you have painted the picture very temptingly, but I cannot realise it. We will not sit in the chairs by the window; the casement shall not be opened; the lamp shall not be put out; I will not look on trees, and grass, and flowers; and, hardest yet, I will not talk of love."

"What do you bet that all these things will not come to pass?" said Lucy, with an arch look.

"Bet!" exclaimed Walter; "I am sure they will not!"

"But what do you bet?" repeated Lucy, pertinaciously.

"Oh, anything!" said Walter, "anything! and I will give as long odds as you like. Against this embroidered note-book of yours, I will stake—let me see, what shall it be?—a first-rate double-action Errard harp; will that do? It is a most magnanimous bet, considering that I am quite determined to win."

"Done!" said Lucy; and "Done!" said Walter.

The word had scarcely passed his lips, when Lucy, with a sudden and violent expiration, extinguished the lamp; with a turn of her finger she closed the book; and when he started from his seat, angry and astonished at this conduct, she threw her arms round his neck, and pulled him gently towards the window.

Here was the Gordian knot most ridiculously and ingloriously cut at once. It was impudent! it was unbearable! Walter struggled to release himself, and uttered various unpleasing exclamations of rage and defiance. But he could not hurt those tender arms; and a silvery laugh was so catching, and a charming and dearly-loved girl so irresistible, that he fairly gave in, yielded himself to his fate, and joined in the laugh with right good will. Lucy placed him in one chair by the window; then she drew the curtain, opened the casement, and sat herself down in the other chair. The moonlight streamed in and displayed the trees, and grass, and flowers without.

Whether Walter talked love to Lucy, I know not; but I suspect that the wager was won in every particular, as Lucy certainly retained her note-book, and

was shortly afterwards presented with a first-rate double-action Errard harp.

MORAL.—When pleasure hovers about your dwelling, open your casement in welcome; for it is most shy and capricious, and never fails to resent any sign of inhospitality.

CIRCUMSTANTIAL EVIDENCE.

CASE OF HARRISON AND THE PERRYS.

In the interesting collection of papers made by Harley, Earl of Oxford, and well known under the title of "The Harleian Miscellany," a pamphlet, of date September 1676, is found, containing an account of the mysterious disappearance of a man denominated William Harrison, and the unhappy consequences that resulted therefrom. The narrative is authenticated by the name of the writer, Sir Thomas Overbury, nephew to the ill-fated gentleman of the same designation, who was so barbarously assassinated in the year 1613. We here abridge the details of the affair of Harrison, which were derived by Sir Thomas from minute inquiries made on the scene of the occurrence.

William Harrison was steward to Viscountess Campden of Campden, in Gloucestershire. On Thursday the 16th of August 1660, he left Campden to walk on foot to Charringworth, about two miles distant, in order there to receive his lady's rents. Harrison was a man of about seventy years of age, yet hale and healthy, and had been accustomed frequently to take similar journeys. On the evening mentioned, however, he did not return at the usual time, and Mrs Harrison, between eight and nine o'clock that evening, sent her servant John Perry to meet his master on the way from Charringworth; but neither Mr Harrison nor his servant John Perry returning that night, the next morning early, Edward Harrison (William's son) went towards Charringworth to inquire after his father. On the way, meeting Perry coming thence, and being informed by him that his father was not there, they went together to Ebrington, a village between Charringworth and Campden, where they were told by one Daniel that Mr Harrison had called at his house the evening before, in his return from Charringworth, but did not stay. Then they went to Paxford, about half a mile thence, where hearing nothing of Mr Harrison, they returned towards Campden; and on the way, learning that a hat, a band, and comb, had been taken up in the highway between Ebrington and Campden, by a poor woman then working in the field, they sought her out, and with her found the hat, band, and comb, which they knew to be Mr Harrison's; and being brought by the woman to the place where she found the same, they there searched for Mr Harrison, supposing he had been murdered, the hat and comb being hacked and cut, and the band bloody; but nothing more could be there found. The news hereof coming to Campden so alarmed the town, that men, women, and children hastened in multitudes to search for Mr Harrison's supposed dead body, but all in vain.

Mrs Harrison's fears for her husband were now much increased; and the circumstance of Perry being sent out the evening before to meet his master, and not returning that night, caused a suspicion that he had robbed and murdered him. Perry was the next day brought before a justice of peace; and being examined concerning his master's absence, and his own staying out on the night when he went to meet Mr Harrison, he made a rambling statement relative to his fears of travelling in the dark, which had led him to sleep in the hen-roost, he said, till the moon rose, after which he went towards Charringworth, but, in consequence of a mist, was obliged to lie down under a hedge, and did not get to the village till the morning came. He only heard then that his master had been there, and had received twenty-three pounds on the previous day. Four persons who had seen Perry confirmed his account of his own movements on the night and morning in question.

Notwithstanding this account which Perry gave of his staying out that night, it was not thought fit to discharge him till further inquiries were made after Mr Harrison; and accordingly he continued in custody at Campden, sometimes in an inn there, and sometimes in the common prison, from Saturday the 18th of August to the Friday following, during which time he was again examined at Campden by the aforesaid justice of peace, but confessed nothing more than before, nor at that time could any further discovery be made what was become of Mr Harrison. But it hath been said, that, during his restraint at Campden, he told some, who pressed him to confess what he knew concerning his master, that a tinker had killed him; and to others, that a gentleman's servant of the neighbourhood had robbed and murdered him; while to others, again, he told that Mr Harrison was murdered and hid in a bean-rick in Campden. But there search was in vain made for him.

At length Perry mentioned that were he again carried before the justice, he would discover to that gentleman what he would discover to nobody else. And thereupon he was (Friday, August the 24th) again brought before the justice of peace, who first examined him, and asked him whether he would yet confess what was become of his master? He answered, "Mr Harrison was murdered, but not by him." The justice of the peace then told him, that if he knew his master

to be murdered, he knew likewise by whom it was done. He acknowledged he did; and being urged to confess what he knew concerning it, affirmed, "That it was his mother and his brother that had murdered his master." The justice of peace then advised him to consider what he said, telling him that he feared he might be guilty of his master's death, and that he should not draw more innocent blood upon his head; for what he now charged his mother and brother with might cost them their lives; but he affirming he spoke nothing but the truth, and that if he were immediately to die he would justify it, the justice desired him to declare how and when they did it.

John Perry then stated, that his mother and brother had long urged him to steal money for them; and that at length, on the evening when his mistress sent him to meet his master, he met his brother in the street, and consented to aid him in robbing and murdering Mr Harrison. They watched the latter accordingly, and the brother, after being joined by the mother, attacked him; at which he (John) told his brother he hoped he would not kill his master; who replied, "Peace, peace; you're a fool," and so strangled him. This done, the brother took a bag of money out of his pocket, and threw it into his mother's lap; and then he and his brother carried his master's dead body into the garden adjoining to the Congree, where they consulted what to do with it, and at length agreed to throw it into the great sink, by Wallington's Mill, behind the garden; and being asked whether it was there, John Perry further said he knew not, for that he left it in the garden, and his mother and brother said they would throw it in there; and if it were not there, he knew not where it was, for that he returned no more to them, but went to the court-gate which goes into the town, where he met with John Pierce, with whom he went into the field, and again returned with him to his master's gate; after which he went into the hen-roost, where he lay till twelve o'clock that night, but slept not; and having, when he came from his mother and brother, brought with him his master's hat-band and comb, which he laid on the hen-roost, he carried the said hat-band and comb, and threw them, after he had given them three or four cuts with his knife, in the highway, where they were afterwards found. And being asked what he intended by so doing, he said he did it that it might be believed his master had been there robbed and murdered; and having thus disposed of his hat-band and comb, he went towards Charringworth, &c., as hath been related.

Upon this confession and accusation, the justice of peace ordered the apprehension of Joan and Richard Perry, the mother and brother of John Perry, and for searching the sink where Mr Harrison's body was said to be thrown; which was accordingly done, but nothing of him could be there found. The fish-pools in Campden were likewise drawn and searched, but nothing could be found.

Saturday, August the 25th, Joan and Richard Perry, together with John Perry, were brought before the justice of peace, who acquainting the said Joan and Richard with what John had laid to their charge, they denied all, with many imprecations on themselves if they were in the least guilty of anything of which they were accused. But John, on the other side, affirmed, to their faces, that he had spoken nothing but the truth, and that they had murdered his master; further telling them, that he could never be at quiet for them since he came into his master's service, being continually followed by them to help them to money, which they told him he might do by giving them notice when his master went to receive his lady's rents; and that he, meeting his brother Richard in Campden town the Thursday morning his master went to Charringworth, told him whither he was going, and upon what errand. Richard confessed he met his brother that morning, and spoke with him, but nothing passed between them to that purpose; and both he and his mother told John he was a villain to accuse them wrongfully as he had done. But John, on the other side, affirmed that he had spoken nothing but the truth, and would justify it to his death.

The morrow being Sunday, they remained at Campden, where the minister of the place, designing to speak to them (if possible) to persuade them to repentance, and a farther confession, they were brought to church; and in their way thither, passing by Richard's house, two of his children meeting him, he took the lesser in his arm, leading the other in his hand, when suddenly both their noses fell a-bleeding, which was looked upon as ominous.

At the next assizes, held in the spring following, John, Joan, and Richard Perry were tried by the then judge of assize, Sir Robert Hyde, knight, upon the indictment of murder, and pleaded thereto, severally, not guilty; and when John's confession before the justice was proved *et cetera* by several witnesses who heard the same, he told them he was then mad, and knew not what he said. The other two, Richard and Joan Perry, said they were wholly innocent, and that they knew nothing of Mr Harrison's death, or what was become of him; Richard also said that his brother had accused others as well as him of having murdered his master; which the judge bidding him prove, he said that most of those that had given evidence against him knew it; but naming none, not any one spoke to it, and so the jury found them all three guilty.

Some few days after, being brought to the place of

their execution, which was on Broadway Hill, within sight of Campden, the mother (being reputed a witch, and to have so bewitched the sons, that they could confess nothing while she lived) was executed first. After which, Richard, being upon the ladder, professed, as he had done all along, that he was wholly innocent of the fact for which he was then to die; and did with great earnestness beg and beseech his brother, for the satisfaction of the whole world and his own conscience, to declare what he knew concerning him; but John, with a dogged and surly carriage, told the people he was not obliged to confess to them. Yet, immediately before his death, he said that he knew nothing of his master's death, nor what was become of him, but that they might hereafter possibly hear.

Such, nearly, in his own uncurtailed language, is the statement of Sir Thomas Overbury relative to the fate of the Perrys. Unhappily, the assertions of John Perry, whatever might be his motives for making them, were proved to be utterly false, when it was too late to rectify the error, by the return of William Harrison to Campden, about two years after his disappearance. His written statement to Sir Thomas Overbury accounted for his mysterious removal in the following manner:—"On my return home [from Charringworth to Campden, he means], I met among Ebrington furzes one horseman, who said, 'Art thou there?' and I, fearing he would have rid over me, struck his horse over the nose; whereupon he struck at me with his sword several blows, and run it into my side, while I, with my little cane, made my defence as well as I could. At last another came behind me, and run me in the thigh, laid hold on the collar of my doublet, and drew me to a hedge near that place, where a third party joined them. They did not take my money, but mounted me behind one of them, drew my arms about his middle, and fastened my wrists together with something that had a spring-lock to it, as I conceived, by hearing it give a snap as they put it on; then they threw a great cloak over me, and carried me away."

In this manner, according to the statement of the old man, his captors hurried him along, incapable of resisting through the severity of his wounds, until, on Sunday morning, "they brought me (he says) to a place by the sea-side, called Deal, where they laid me down on the ground; and one of them staying by me, the other two walked a little off, to meet a man, with whom they talked; and in their discourse I heard them mention seven pounds, after which they went away together, and about half an hour after returned. The man, whose name, as I after heard, was Wrenshaw, said he feared I would die before he could get me on board. Then presently they put me into a boat, and carried me on ship board, where my wounds were dressed."

Harrison recovered slowly from his wounds on board, and, after a time, was put into a Turkish vessel, as if by arrangement, and was taken to Smyrna, where he was sold as a slave. "It was my chance to be chosen by a grave physician of eighty-seven years of age, who lived near to Smyrna, who had formerly been in England, and knew Crowland in Lincolnshire, which he preferred before all other places in England."

For a year and some months Harrison remained here, decently treated, and moderately worked, by his master. That personage was at length seized with a mortal illness, and, before his decease, told Harrison that he was free to look after himself. Possessed of a silver bowl, he got secretly on board of a vessel bound for Lisbon, by bribing two sailors with it; and when in the Portuguese capital, found some Englishmen, who procured him a passage to England.

The deplorable end of the three Perrys, and the strange nature of this whole story, caused much speculation to be exercised on the subject. Notwithstanding the excellent character ever borne by William Harrison, many had "hard thoughts" of the old man, but suspicion could fix upon no reason, of the slightest plausibility, for a voluntary disappearance. One conjecture was made, to which some probability attached; and this was, that Harrison's own son was the author of his abduction. "Some believe," says Sir Thomas Overbury, "that the hopes of the stewardship, which the young man afterwards, by the Lord Campden's favour, enjoyed, might induce him to contrive his father's removal; and this they are the more confirmed in by his misbehaviour in the office." Sir Thomas, however, a man of good heart, thinks that the son would not, in case of personal guilt, have prosecuted the Perrys so bitterly as he did, nor have procured the suspension of John Perry in chains, at a spot where he could daily see the body. But as such violence to a father presupposes a spirit of the most wicked order, we fear that the conduct of young Harrison to the Perrys only rendered the presumption greater of his being the criminal party in the first instance. He, alone, as has been said, appeared to have any interest in the commission of such an act.

The conduct of John Perry in some measure justifies the extremity to which the law proceeded against himself, his brother, and his mother. Whether his behaviour sprang from motives of revenge, or was the result of insanity, it is impossible now to say. Happily, now-a-days, the production of the body would be demanded by the law in the absence of direct ocular testimony, ere criminality should be decisively assumed.

The hope which Sir Thomas Overbury expresses, that in due time light would be thrown on the dark portions of this story, was never fulfilled.

SWISS WATCHMAKERS.

From Mr Adam Thomson (25, New Bond Street, London), a gentleman known as the writer of a useful treatise on Time and Time-keepers, we have received a letter, in which we are charged with injustice in lately speaking of the watchmaking trade of Neuchâtel.

"Speaking of Swiss watchmakers, you say, 'They are untaxed, live in a simple manner, possess a finer taste, and, from their temperateness of living, have a greater delicacy of hand than the generality of English workmen.' That the Swiss are untaxed, that their tithes are voluntary, and that they live in a simple manner, is true, but the latter part of your remark is incorrect. The French excel us in taste, from having had the advantage of a national school of design; and the Swiss watch, in size and appearance, is but a copy of that of the French. In England, when utility was preferred to ornament, there was never sufficient demand to encourage the manufacture of mere toys. In the reign of George IV., our aristocracy first set the fashion which has now descended to all grades, the greater cheapness of the foreign production having increased the demand. Have these futile ornaments ever advanced science or bettered the condition of mankind? What country first gave the mariner a machine to guide him in his uncertain way? Have not the labours of Graham, Harrison, Arnold, Earnshaw, and Mudge, past members of this now sinking art in England, done more for science and commerce than all the makers of handsome and curious watches in Europe?"

The Swiss workman cultivates his own acre of land, and feels himself of some importance in his native country; and it is true that the man who has to struggle with poverty can scarcely attain such a moral dignity; but English watchmakers, as a class, are remarkable for their 'temperateness of living,' their industry and intellect; their 'nimble fingers' ply their vocation as industriously as those you describe, and sometimes (so pressing are their necessities) even on that day which a kind Providence set apart as much for bodily relaxation as for mental improvement.

With regard to your assertion, that English workmen have less 'delicacy of hand,' I can only say that, in an extensive connexion with both French and Swiss watchmakers (some of whom were not unwilling to arrogate to themselves a little more than their due), I never met one who even hinted at such a distinction; on the contrary, they admit that their best watches are those which most resemble the English, and that our inventions and improvements are adopted in their best manufacture. Watchmaking is essentially English, deriving its principles from the researches of Newton, Hooke, Harrison, and Graham. Why, then, is this branch of industry leaving us? Not from want of 'delicacy of hand,' but because the English mechanic, to procure the bare necessities of life, requires at least 35 per cent. more for his labour than his foreign competitor.

As your article cannot fail in having a prejudicial effect on a suffering but deserving class of men, I trust you will endeavour to correct that part at least wherein superior skill is attributed to foreign workmen. There is already a preference for foreign watches, if not by the considerate, by a large portion of the higher classes of our community. This once-boasted manufacture of England is nearly ruined, and thousands of valuable mechanics (from the nature of their occupation, meek and patient men) quietly meet their fate, being unable to sell their productions at the same price as those who are more fortunately situated. I would, however, ask, if this manufacture, so truly English, is to disappear, will not the same cause destroy others even more valuable to the country? If trade were free, the English workman would seek no favour; his intellect and energy would soon better his condition."

To this temperate and well-meant communication, the writer of the article in question can only express his regret that anything which he said, in reference to English watchmakers, should have given offence, or be construed into a means of injury to their interests. As a class, we are most willing to allow that British watchmakers have done much for practical science, are in many respects worthy of Mr Thomson's encomiums, and that they possess a skill not reached by continental imitators. Still, we may be permitted to ask, why they suffer themselves to be cut out of that large and increasing branch of business, which consists in the manufacture of small watches similar to those of Geneva. These watches may be little better than toys, but if people are set on buying them, surely it would be a wise policy to meet the demand. Mr Thomson declares that it is not from any lack of delicacy of hand, but dearth of provisions, that the English workman cannot compete in this manufacture. We entertain serious doubts on the latter point. A skilled Swiss workman will make 8s. or 9s. per week of wages; but an English artisan of the same class, we believe, will make from 16s. to 20s. This addition of wages is much more than 35 per cent. additional on the cost of food; and our conviction is, that with all our social drawbacks, an English workman, if steady and enjoying regular employment, is placed in a condition, and has chances of advancement, far above the Swiss. Our opinion is, that the prosperity of the Swiss handicraftsmen is less owing to cheapness of food than to an exceedingly simple mode of living. They seem to exist happily on a mere trifle, and make up for local disadvantages by sheer industry, a species of economy which we should say was allied to penury, and the absence of all restrictions on trade and commerce. In a late newspaper we find the following paragraph, purporting to be an extract from the *Athenæum*. It is possibly an exaggeration, and we only introduce it to show that others have taken a severer view of this question than we have done.

"I do not know a more interesting sight than to visit

the watchmaking districts [of Switzerland]. A great deal of the work is done in the mountains; and nearly all the rough work is done there by women, the finer work by men. The wages earned are very low, considering the nature of the work; but the fact is that there is no scarcity of that skill and sobriety, and steadiness of hand and eye, essential to this class of work. There is no monopoly of capacity for it, as there is in London. It is highly-paid work there, and the English watch-workmen possess the means of indulging in drink, not unfrequently without enough of moral principle and intelligence to resist the temptation. It is sometimes the case that they get into difficulties before their work is done, pawn their lathe and tools, and finish and spoil it with inferior instruments. Drink soon impairs the nerves, and they lose their steadiness of hand. There is, therefore, a constant scarcity of first-rate hands in London. This is not the case in Switzerland; the moral and primitive habits of the people extend the sobriety essential to the perfection of the art over the whole community. It is in-door work, and suits them during the long continuance of weather too inclement in the mountains to permit of open air occupation. It is surprising how few are the tools, and how delicate the use of them by the artisan peasantry who carry on this manufacture in Switzerland. Carouges and Geneva are the great marts of the trade, and thence work is given out to the surrounding villagers; they must work hard to earn two francs a-day, and the majority do not average more than 30 sols (15d.)."

THE THAMES TUNNEL.

The tunnel has now completely reached across the river—a distance of 1200 feet; and the projector and engineer had the gratification, a short time since, of being the first who walked from bank to bank, to the shaft on the London side. Those shafts on both sides of the river which are intended for foot passengers are really grand things. They are a succession of staircases going round a vast circular excavation, between seventy and eighty feet deep, and when they shall be all lighted with gas, will be among the most extraordinary parts of the whole structure. Even now, they strongly realise the poetic conception of the descent into the caverns of the Egyptian mysteries; and the view of the interior, nearly a quarter of a mile in extent, lighted with a long succession of melancholy flames, would probably have suggested to a Greek the image of an entrance into Tartarus. The expense of the stone bridge is enormous. Waterloo Bridge cost upwards of a million—London bridge about as much more. Westminster and Blackfriars Bridges, which were built at a cheaper rate and in cheaper times, so constantly demand repairs, that they probably have cost more than either of the modern ones; but the tunnel has the advantage of giving a passage from side to side of the Thames, where, from the breadth of the river, a stone bridge would have probably cost nearer two millions than one, and where no bridge could be thrown across without blocking up the most important part of the Thames, that portion which may be called the great wet dock of London. Yet the expense of the whole has not amounted to more than £4,000,000; and even this is to be remembered as an expense greatly increased by the utter novelty of the experiment, by difficulties unforeseen in the commencement, by several interruptions of the river, by the dearth of workmen's wages, arising from the peculiar peril and singular nature of the labour connected with an undertaking carried on at all hours, and wholly by artificial light. All this, too, in constant hazard of an influx of the river, and the various difficulties belonging to working in a mine. The weight of a vast body of water above, acting alike during summer and winter, which at any moment might break in, and against whose incursions it was as necessary to fortify the outside of the tunnel as the interior, added greatly to the difficulties of the undertaking. The original object of the tunnel was to convey cattle, passengers, and general traffic from the rich counties on the Kent side, to that great mercantile region of the metropolis, the London and East and West Indian Docks. How far this will be now effected, is a question which remains to be decided by experience. There can be no doubt that if the traffic be not impeded by the fear of passing under the river, it must be immense. The convenience of escaping the long circuit up to London Bridge, which, from the various obstructions in the streets, and the general difficulty of passing through the most crowded portion of the city, must now occupy many hours, would obviously direct the whole current of the traffic into the tunnel. Hitherto, no expedient has been adopted to shorten the passage of the traffic; and the contrivance by which 1200 clear feet are substituted for at least three miles of the most incumbered thoroughfares imaginable, must be adopted as a matter of palpable advantage. Still, there may be difficulties in the way, which practice only can exhibit. But any fear of the structure itself we should regard as altogether visionary. The building of the tunnel seems as solid as a rock. During the whole period from its commencement, we have not heard a single instance of its giving way, vast as the pressure was from above, and trying as were the damp, the ground springs, and the extreme difficulty of building under water. At this moment the roof is obviously as free from damp as the roof of St Paul's! and unless an earthquake should burst it, the whole fabric seems much more likely to last than were it exposed to the vicissitudes of temperature, the heats and frosts, above ground.—*Blackwood's Magazine*.

[We fear that some of the above calculations respecting the utility of the tunnel are overdrawn. There can be no doubt that by the transit through the tunnel a long circuit will be saved to vehicles and passengers, but will they take advantage of it? They will, certainly, if the passage be free, but, judging from the effects of a toll on Waterloo and Southwark bridges, if the passage be taxed, even in a trifling amount, it will in all likelihood be avoided. We present on next column a glowing eulogy on Brunel, the planner of the tunnel, which has been sent to us by Miss Camilla Toulmin, a lady of rising literary reputation.]

ON THE COMPLETION OF THE THAMES TUNNEL.

BY CAMILLA TOULMIN.

Joy to thee, brave Brunel!—thy task is done,
Th' immortal wreath of fame is nobly won!
Not thus the warrior's stain'd and tear-dew'd crown,
Thou hast a loftier and more pure renown.
Joy to thee, brave Brunel!—thou hast been tried
By the world's ordeal, and success hath dried
The well-springs of Distrust, whose waters deep
Engulf such precious things—or coldly steep
The heart of genius, until warped aside,
Or piecemeal rotted, by that ebon tide,
Its might and majesty alike are past:
But thine, Brunel, was of too stern a cast;
Though round thee long had flowed those turbid waves,
Bearing upon their crests the ready slaves
Of ignorance—the bitter taunt and jest
That folly, in its mischievous unrest,
Seizes with vacant laugh, and blindly flings
At dazzling genius on her soaring wings.
And yet, methinks, Distrust's dark icy stream
Did to thy noble heart through long years seem
More fearful than old Father Thames that roll'd
In loud defiance o'er thee; who, contriv'd
By the strong spell of science, meekly now
Learns in obedience to thy will to flow!
Oh! how much greater art thou, brave Brunel!
Than Perseus' king, who, as old histories tell,
Came with his millions, and but strove in vain
With all his might one rebel wave to chain.
Was there a mind like thine in all his train?
And do not at such thoughts quick memories throng,
Worthy a nobler bard and loftier song,
To tell how dark those wild and barbarous ages,
When warrior's deeds fill'd up the historian's pages?
Now doth at least a twilight dawn; men pay
With fame's bright garlands, not alone who slay,
But them who save and serve. Joy, brave Brunel!
The new "world's wonder" is achieved, and well
By its own self is thy great soul repaid;
And yet wert thou as great, ere yet array'd
With the world's halo, that success has cast
Around thee (for mankind are just at last);
Thou wert as great when this "world's wonder" dwelt
Yet unembodied in the mind that felt
Its power to do and dare. Did it then rise
In grand perfection to thy spirit's eyes,
Conceived one moment and matured the next
(As Wisdom's goddess in the heathen text,
Sprung forth all armed from the Thunderer's brain)?
Or was it link by link, the perfect chain
Of thy so wonderful design was wrought
In the mind's mazes of most tangled thought?
Whichever, it matters not, for then, as now,
As great thou wert, the thoughtful feel and know;
When thou didst take a lesson from the worm
The strange secret of the work to form,
And show the precept men are slow to learn—
Nought God has made is low enough to spurn;
That loftiest science most acutely feels.
How vast the lore great Nature's law reveals.
Thou wert as great—yes, greater in these years
Of silent grief and watching, when dark fears,
Methinks, must oft have dimm'd or hidden quite
The cheering rays of hope's exceeding light.
The seven years' in which no workman's stroke
Those arches' mute forgetful echoes woke.
But hark! they have a tongue again, and dwell
No more in "cold obstruction"—brave Brunel!
Unquench'd by the dull flood of those long years,
Thy spirit's fire more purely bright appears;
And like a chain electric, runs through all
The busy crew who gathered at thy call;
Teaching them well to understand they shared
The glory of all that which thou hadst dared.
And didst thou life to wood and iron yield,
When thou didst sway thy ever trusty "shield"?
Joy to thee, great Brunel! thy task is done,
The immortal wreath of fame is nobly won!
Her clarion sounds, and thy name is the note
That echoes catch, and round the world doth float.
And this is guerdon worthy even thee;
Ambition's dream made rich reality.
But is there not a joy more deep—intense,
The triumph of thy work's own recompense?
Doth not this give to nature's beautiful face
Some added charm or once unheeded grace?
Surely more bright each earthly thing appears
Than in the night of those long struggling years.
Joy to thee, brave Brunel!—I do not know
From the dull common crowd that thoughtful brow,
Where MIND hath fixed her starry diadem;
Yet wilt thou not my lowly verse condemn,
Or spurn the homage I but feebly pay;
And so, ere closes quite my humble lay,
One heartfelt prayer—one farewell all shall swell,
God bless thee ever, great and brave Brunel!

LONDON, June 1842.

* "This mighty instrument—one in idea and object, but consisting of twelve separate parts or divisions, each containing three cells, one above the other—is thus used:—We will suppose that the work being finished in its rear, an advance is desired, and that the divisions are in their usual position, the alternate ones a little before the others. These last have now to be moved. The men in their cells pull down the top paling-board, one of those small defences with which the entire front of the shield is covered, and immediately cut away the ground for about six inches. That done, the paling-board is replaced, and the one below removed, and so on till the entire space in front of these divisions has been excavated to the depth of six inches. Each of the divisions is now advanced by the application of two screws, one at its head and one at its foot, which, resting against the finished brick-work, and turned, impel it forward into the vacant space. The other set of divisions then advances. As the miners are at work at one end of the cells, so the bricklayers are no less actively employed at the other forming the brick walls of the top, sides, and bottom, the superincumbent earth of the top being still held up by the shield till the bricklayers have finished. This is but a rude description of an engine almost as remarkable for its elaborate organisation as for its vast strength. Beneath those great iron ribs a kind of mechanical soul really seems to have been created. It has its shoes and its legs, and uses them, too, with good effect. It raises and depresses its head at pleasure; it presents invincible buttresses in its front to whatever danger may there threaten, and, when the danger is past, again opens its breast for the further advances of the indefatigable host."—*London* article, "The Thames Tunnel."

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